

- 1 1. A heart rate variability system comprising:
2 a plurality of heart rate monitors, each located at a medical facility and operable
3 to collect physiological data of a patient from which heart rate variability can be assessed;
4 and
5 a processing center located remotely from, and in communication with said
6 plurality of heart rate monitors, wherein said processing center is adapted to receive said
7 physiological data from each of said plurality of heart rate monitors and to analyze said
8 physiological data to provide results of one or more tests based on the patient's heart rate
9 variability and indicative of the patient's autonomic nervous system function.
- 1 2. The heart rate variability system of claim 1 wherein each of said plurality of heart
2 rate monitors is in communication with said processing center through at least one of a
3 POTS line and a T1 line.
- 1 3. The heart rate variability system of claim 1 wherein said processing center
2 includes:
3 a processor on which an R-wave detection routine is implemented; and
4 a user interface adapted to receive an input from an analyst by which R-wave
5 detections are added or deleted.
- 1 4. The heart rate variability system of claim 3 wherein said user interface is further
2 adapted to receive an input from said analyst by which a heart rate variability waveform
3 generated in response to said detected R-waves is modified.
- 1 5. The heart rate variability system of claim 1 wherein each of said heart rate
2 monitors comprises a display for displaying a waveform showing the breathing
3 performance of said patient during collection of said physiological data and standards
4 against which to compare said waveform in order to determine the extent to which said
5 patient followed a predetermined breathing regimen during collection of said
6 physiological data.

1 6. The heart rate variability system of claim 5 wherein each of said plurality of heart
2 rate monitors includes a user interface adapted to receive an input from an operator by
3 which said physiological data of said patient is accepted or rejected, wherein only
4 accepted physiological data is transmitted to said processing center for analysis.

1 7. The heart rate variability system of claim 6 wherein said physiological data of
2 said patient is rejected by said operator if comparison of said waveform to said standards
3 reveals greater than a predetermined deviation between said waveform and said
4 standards.

1 8. The heart rate variability system of claim 6 wherein said physiological data of
2 said patient is accepted by said operator if (a) comparison of said waveform to said
3 standards reveals less than a predetermined deviation between said waveform and said
4 standards; or (b) comparison of said waveform to said standards reveals greater than a
5 predetermined deviation between said waveform and said standards and said acceptance
6 is based on a request by said operator for feedback from said processing center.

1 9. The heart rate variability system of claim 1 wherein said processing center is
2 further adapted to transmit said results to the one of said plurality of collection devices at
3 which said physiological data is collected.

1 10. The heart rate variability system of claim 1 wherein said processing center is
2 further adapted to compare said results to predetermined acceptance criteria and to reject
3 said results if said comparison reveals greater than a predetermined deviation between
4 said results and said predetermined acceptance criteria.

1 11. A medical testing telemetry system comprising:
2 a plurality of collection devices, each one located at a medical facility and
3 operable to collect physiological data of a patient, wherein each of said collection devices
4 comprises:

5 a display for displaying a waveform showing the patient's performance
6 during collection of the physiological data and standards against which to
7 compare said performance waveform in order to determine the extent to which
8 said patient followed a predetermined breathing regimen during collection of the
9 physiological data; and

10 a user interface adapted to receive an input indicating acceptance of said
11 physiological data if said comparison reveals less than a predetermined deviation
12 between said performance waveform and said standards or indicating rejection of
13 said physiological data if said comparison reveals greater than a predetermined
14 deviation between said performance waveform and said standards; and

15 a processing center located remotely from, and in communication with said
16 plurality of collection devices, wherein said processing center is adapted to receive said
17 accepted physiological data from each of said plurality of collection devices and to
18 analyze said physiological data to provide a test result.

1 12. The medical testing telemetry system of claim 11 wherein each of said collection
2 devices is a heart rate monitor adapted to collect physiological data from which the
3 patient's heart rate variability can be assessed and wherein said test is selected from the
4 Valsalva test, the E/I test, and the standing test.

1 13. The medical testing telemetry system of claim 12 wherein said performance
2 waveform shows breath pressure versus time when said test is the Valsalva test.

1 14. The medical testing telemetry system of claim 12 wherein said performance
2 waveform shows breath volume versus time when said test is the E/I test.

1 15. A medical testing telemetry system comprising:
2 a collection device located at a medical facility and operable to collect
3 physiological data of a patient;
4 a first processing center located remotely from, and capable of communication
5 with said collection device, wherein said first processing center is adapted to receive said

6 physiological data of the patient and to analyze the physiological data of the patient to
7 provide a test result based on the physiological data; and
8 a second processing center located remotely from, and capable communication
9 with said collection device, wherein said second processing center is adapted to receive
10 said physiological data of the patient and to analyze the physiological data of the patient
11 to provide a test result based on the physiological data.

1 16. The medical testing telemetry system of claim 15 wherein said collection device
2 comprises a processor which randomly selects one of said first and second processing
3 centers to analyze said physiological data of the patient.

1 17. The medical testing telemetry system of claim 15 wherein said first and second
2 processing centers are interconnected.

1 18. The medical testing telemetry system of claim 17 wherein said first and second
2 processing centers are interconnected by a plurality of communication links.

1 19. The medical testing telemetry system of claim 15 wherein said first and second
2 processors are further adapted to transmit the test result to said collection device at which
3 said physiological data is collected.